Claim Amendments

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

- 1. (currently amended) A process for preparing rigid urethane-modified polyisocyanurate foam comprising the step of reacting an organic polyisocyanate with a polyfunctional isocyanate-reactive component comprising at least 30 wt % of polyester polyols in the presence of a blowing agent and a metal salt trimerisation catalyst characterized in that the process is carried out in the presence of a carboxylic acid and wherein the blowing agent is water, a hydrocarbon, a hydrofluorocarbon, or mixtures of any or some of the foregoing and the metal salt trimerisation catalyst is used in an amount ranging from 0.5 to 5 % by weight based on the isocyanate-reactive component.
- 2. (original) The process according to claim 1 wherein the carboxylic acid has a molecular weight below 250.
- 3. (original) The process according to claim 1 wherein the carboxylic acid has a pKa value in water of between 1 and 5.5.
- 4. (original) The process according to claim 2 wherein the carboxylic acid has a pKa value in water of between 1 and 5.5.
- 5. (original) The process according to claim 1 wherein the carboxylic acid is functionalised with at least one additional OH, COOH, SH, NH₂, NHR, NO₂ or halogen functional group, wherein R is an alkyl, cycloalkyl or aryl group.
- 6. (original) The process according to claim 2 wherein the carboxylic acid is functionalised with at least one additional OH, COOH, SH, NH₂, NHR, NO₂ or halogen functional group, wherein R is an alkyl, cycloalkyl or aryl group.

- 7. (original) The process according to claim 3 wherein the carboxylic acid is functionalised with at least one additional OH, COOH, SH, NH₂, NHR, NO₂ or halogen functional group, wherein R is an alkyl, cycloalkyl or aryl group.
- 8. (original) The process according to claim 4 wherein the carboxylic acid is functionalised with at least one additional OH, COOH, SH, NH₂, NHR, NO₂ or halogen functional group, wherein R is an alkyl, cycloalkyl or aryl group.
- 9. (original) The process according to claim 5 wherein the carboxylic acid is functionalised in α or β position with respect to the carboxyl group.
- 10. (original) The process according to claim 6 wherein the carboxylic acid is functionalised in α or β position with respect to the carboxyl group.
- 11. (original) The process according to claim 9 wherein said functionalised carboxylic acid corresponds to the general formula X_n R' COOH wherein X is OH, COOH, SH, NH₂, NHR, NO₂ or halogen, R' is an at least divalent hydrocarbon moiety, n is an integer having a value of at least 1 and allows for mono and polyfunctional substitution on the hydrocarbon moiety.
- 12. (original) The process according to claim 10 wherein said functionalised carboxylic acid corresponds to the general formula X_n R' COOH wherein X is OH, COOH, SH, NH₂, NHR, NO₂ or halogen, R' is an at least divalent hydrocarbon moiety, n is an integer having a value of at least 1 and allows for mono and polyfunctional substitution on the hydrocarbon moiety.
- 13. (original) The process according to claim 11 wherein X is OH or COOH, n is 1 and R' is a linear or branched aliphatic or aromatic hydrocarbon having 2 to 6 carbon atoms.
- 14. (original) The process according to claim 12 wherein X is OH or COOH, n is 1 and R' is a linear or branched aliphatic or aromatic hydrocarbon having 2 to 6 carbon atoms.
- 15. (original) The process according to claim 1 wherein said carboxylic acid is lactic acid, salicylic acid, maleic acid, acetic acid, or malic acid.

- 16. (original) The process according to claim 2 wherein said carboxylic acid is lactic acid, salicylic acid, maleic acid, acetic acid, or malic acid.
- 17. (original) The process according to claim 11 wherein said carboxylic acid is lactic acid, salicylic acid, maleic acid, acetic acid, or malic acid.
- 18. (original) The process according to claim 1 wherein said carboxylic acid is used in an amount ranging from 0.05 to 5 % by weight based on the isocyanate-reactive component.
- 19. (original) The process according to claim 2 wherein said carboxylic acid is used in an amount ranging from 0.05 to 5 % by weight based on the isocyanate-reactive component.
- 20. (cancelled) The process according to claim 1 wherein the trimerisation catalyst is a metal salt trimerisation catalyst.
- 21. (cancelled) The process according to claim 2 wherein the trimerisation catalyst is a metal salt trimerisation catalyst.
- 22. (currently amended) The process according to claim [20]1 wherein the metal salt trimerisation catalyst is an alkali metal salt of an organic carboxylic acid.
- 23. (currently amended) The process according to claim [21]2 wherein the metal salt trimerisation catalyst is an alkali metal salt of an organic carboxylic acid.
- 24. (original) The process according to claim 23 wherein the metal salt trimerisation catalyst is potassium acetate or potassium 2-ethylhexanoate.
- 25. (cancelled) The process according to claim 24 wherein the metal salt trimerisation catalyst is used in an amount ranging from 0.5 to 5 % by weight based on the isocyanate-reactive component.
- 26. (original) The process according to claim 1 wherein the reaction is carried out at an isocyanate index of 150 to 450 %.

- 27. (cancelled) The process according to claim 1 wherein the blowing agent is water, a hydrocarbon, a hydrofluorocarbon, or mixtures of any or some of the foregoing.
- 28. (currently amended) A rigid urethane-modified polyisocyanurate foam obtained by reacting an organic polyisocyanate with a polyfunctional isocyanate-reactive component comprising at least 30 wt % of polyester polyols in the presence of a blowing agent and a metal salt trimerisation catalyst characterized in that the reaction is carried out in the presence of a carboxylic acid and wherein the blowing agent is water, a hydrocarbon, a hydrofluorocarbon, or mixtures of any or some of the foregoing and the metal salt trimerisation catalyst is used in an amount ranging from 0.5 to 5 % by weight based on the isocyanate-reactive component.
- 29. (cancelled) A polyfunctional isocyanate-reactive composition containing a metal salt trimerisation catalyst and a carboxylic acid.